

New Jersey Department of Environmental Protection  
Facility Specific Requirements

Subject Item: U1 Scrubber system controlling emissions from foundry cupola  
Operating Scenario: OS Summary

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
5	The permittee shall not use the equipment in a manner which will cause visible emissions to exceed 10%, except for a period of 30 minutes during startup and shutdown when opacity shall not exceed 20%, exclusive of condensed water vapor. [N.J.A.C. 7:27-22.16(e)]	Monitored by visual determination daily, based on an instantaneous determination. For compliance with the monitoring and recordkeeping requirements for the opacity standard, the permittee shall conduct visual opacity inspections during daylight hours. Visual inspections shall consist of a visual survey to identify if the stack has visible emissions (other than condensed water vapour), greater than the prescribed standard. If visible emissions are observed, the permittee shall do the following: (1) Verify that the equipment and/or control device causing the emission is operating according to the manufacturer's specifications and the operating permit compliance plan. If the equipment or control device is not operating properly, the permittee shall take corrective action immediately to eliminate the excess emissions. The permittee must report any permit violation to NJDEP pursuant to N.J.A.C. 7:27-22.19. (2) If the corrective action taken in step one does not correct the opacity problem within 24 hours, the applicant shall perform a check via a certified opacity reader, in accordance with N.J.A.C. 7:27B-2. Such a test shall be conducted once per day until corrective action is taken to successfully correct the opacity problem. The permittee must report any continuing permit violation to NJDEP pursuant to [N.J.A.C. 7:27-22.19] and. [N.J.A.C. 7:27-22.16(o)]	Recordkeeping by manual logging of parameter daily. The permittee must retain the following records: (1) Date and time of inspection; (2) Emission point number; (3) Operational status of equipment; (4) Observed results and conclusions; (5) Description of corrective action taken if needed; (6) Date and time opacity problem was solved, if applicable; and (8) Name of person(s) conducting inspection. [N.J.A.C. 7:27-22.16(o)]	None.
6	Maximum annual emission rate from preconstruction permit TSP <= 37.8 tons/yr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.

ATLANTIC STATES CAST IRON PIPE CO (85441)  
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7	Maximum annual emission rate from preconstruction permit. PM-10 (total) = 37.8 tons/year. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
8	Maximum annual emission rate from preconstruction permit Carbon monoxide <= 756 tons/yr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
9	Maximum annual emission rate from preconstruction permit. SO2 <= 4.95 tons/yr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
10	Maximum annual emission rate from preconstruction permit. Nitrogen oxides <= 50.4 tons/yr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
11	Maximum annual emission rate from preconstruction permit. VOC (Total) <= 21.6 tons/yr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
12	Maximum annual emission rate from preconstruction permit. HAPs(total) <= 2.8 tons/year. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
13	Maximum annual emission rate from preconstruction permit. Arsenic Emissions <= 0.001 tons/yr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
14	Maximum annual emission rate from preconstruction permit. Cadmium Emissions <= 0.08 tons/yr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
15	Maximum annual emission rate from preconstruction permit. Chromium Emissions <= 0.011 tons/yr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
16	Maximum annual emission rate from preconstruction permit. Lead Emissions <= 2.6 tons/yr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.

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17	Maximum annual emission rate from preconstruction permit. Mercury Emissions <= 136 lb/yr. [N.J.A.C. 7:27-22.16(e)]	Other: Calculate annual emissions based on the annual scrap usage an the average lb/ton emission factor. The emission factor shall be calculated based on the mercury tests and the amount of scrap used during the tests. [N.J.A.C. 7:27-22.16(o)].	Other: Record lb/year emissions annually. [N.J.A.C. 7:27-22.16(o)].	Other (provide description): As per the approved schedule Submit an annual report. A report including annual mercury emissions for each calendar year, shall be submitted to the Regional Enforcement Office and the Bureau of Air Quality Evaluation. The report shall be submitted within 30 days after the end of each calendar year. [N.J.A.C. 7:27-22.16(o)]
18	Maximum annual emission rate from preconstruction permit. Nickel Emissions <= 0.0027 tons/yr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
19	Maximum emission rate from preconstruction permit. TSP <= 21 lb/hr. [N.J.A.C. 7:27-22.16(e)] NON-COMPLIANT AT TIME OF PERMIT ISSUANCE. SEE COMPLIANCE SCHEDULE IN PART G.	Other: Stack emission testing. See Subject Item PT1 for details. [N.J.A.C. 7:27-22.16(e)]. NON-COMPLIANT AT TIME OF PERMIT ISSUANCE. SEE COMPLIANCE SCHEDULE IN PART G.	Other: Stack test results. See Subject Item PT1 for details. [N.J.A.C. 7:27-22.16(e)]. NON-COMPLIANT AT TIME OF PERMIT ISSUANCE. SEE COMPLIANCE SCHEDULE IN PART G.	Other (provide description): Submit a stack test report. See Subject Item PT1 for details. [N.J.A.C. 7:27-22.16(o)] NON-COMPLIANT AT TIME OF PERMIT ISSUANCE. SEE COMPLIANCE SCHEDULE IN PART G.
20	Maximum emission rate from preconstruction permit. PM-10 (total) <= 21 lb/hr. [N.J.A.C. 7:27-22.16(e)]	Other: Stack emission testing. See Subject Item PT1 for details. [N.J.A.C. 7:27-22.16(e)].	Other: Stack test results. See Subject Item PT1 for details. [N.J.A.C. 7:27-22.16(e)].	Other (provide description): Submit a stack test report. See Subject Item PT1 for details. [N.J.A.C. 7:27-22.16(o)]
21	Maximum emission rate from preconstruction permit. Carbon monoxide <= 420 lb/hr. [N.J.A.C. 7:27-22.16(e)] NON-COMPLIANT AT TIME OF PERMIT ISSUANCE. SEE COMPLIANCE SCHEDULE IN PART G.	Other: Stack emission testing. See Subject Item PT1 for details. [N.J.A.C. 7:27-22.16(e)]. NON-COMPLIANT AT TIME OF PERMIT ISSUANCE. SEE COMPLIANCE SCHEDULE IN PART G.	Other: Stack test results. See Subject Item PT1 for details. [N.J.A.C. 7:27-22.16(e)]. NON-COMPLIANT AT TIME OF PERMIT ISSUANCE. SEE COMPLIANCE SCHEDULE IN PART G.	Other (provide description): As per the approved schedule Submit a stack test report. See Subject Item PT1 for details. [N.J.A.C. 7:27-22.16(o)] NON-COMPLIANT AT TIME OF PERMIT ISSUANCE. SEE COMPLIANCE SCHEDULE IN PART G.
22	Maximum emission rate from preconstruction permit. SO2 <= 2.75 lb/hr. [N.J.A.C. 7:27-22.16(e)]	Other: Stack emission testing. See Subject Item PT#1 for details. [N.J.A.C. 7:27-22.16(e)].	Other: Stack test results. See Subject Item PT1 for details. [N.J.A.C. 7:27-22.16(e)].	Other (provide description): Submit a stack test report. See Subject Item PT1 for details. [N.J.A.C. 7:27-22.16(o)]
23	Maximum emission rate from preconstruction permit. Nitrogen Oxide <= 28 lb/hr. [N.J.A.C. 7:27-22.16(e)]	Other: Stack emission testing. See Subject Item PT1 for details. [N.J.A.C. 7:27-22.16(e)].	Other: Stack test results. See Subject Item PT1 for details. [N.J.A.C. 7:27-22.16(e)].	Other (provide description): Submit a stack test report. See Subject Item PT1 for details. [N.J.A.C. 7:27-22.16(o)]

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24	Maximum emission rate from preconstruction permit. VOC(total) <= 12 lb/hr. [N.J.A.C. 7:27-22.16(e)]	Other: Stack emission testing. See Subject Item PT1 for details. [N.J.A.C. 7:27-22.16(e)].	Other: Stack test results. See Subject Item PT1 for details. [N.J.A.C. 7:27-22.16(e)].	Other (provide description): Submit a stack test report. See Subject Item PT1 for details. [N.J.A.C. 7:27-22.16(o)]
25	Maximum emission rate from preconstruction permit. HAPs (total) <= 1.53 lb/hr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
26	Maximum emission rate from preconstruction permit. Arsenic Emissions <= 0.00058 lb/hr. [N.J.A.C. 7:27-22.16(e)]	Other: Stack emission testing. See Subject Item PT1 for details. [N.J.A.C. 7:27-22.16(e)].	Other: Stack test results. See Subject Item PT1 for details. [N.J.A.C. 7:27-22.16(e)].	Other (provide description): Submit a stack test report. See Subject Item PT1 for details. [N.J.A.C. 7:27-22.16(o)]
27	Maximum emission rate from preconstruction permit. Cadmium Emissions <= 0.044 lb/hr. [N.J.A.C. 7:27-22.16(e)]	Other: Stack emission testing. See Subject Item PT1 for details. [N.J.A.C. 7:27-22.16(e)].	Other: Stack test results. See Subject Item PT1 for details. [N.J.A.C. 7:27-22.16(e)].	Other (provide description): Submit a stack test report. See Subject Item PT1 for details. [N.J.A.C. 7:27-22.16(o)]
28	Maximum emission rate from preconstruction permit. Chromium Emissions <= 0.0063 lb/hr. [N.J.A.C. 7:27-22.16(e)]	Other: Stack emission testing. See Subject Item PT1 for details. [N.J.A.C. 7:27-22.16(e)].	Other: Stack test results. See Subject Item PT1 for details. [N.J.A.C. 7:27-22.16(e)].	Other (provide description): Submit a stack test report. See Subject Item PT1 for details. [N.J.A.C. 7:27-22.16(o)]
29	Maximum emission rate from preconstruction permit. Lead Emissions <= 1.44 lb/hr. [N.J.A.C. 7:27-22.16(e)]	Other: Stack emission testing. See Subject Item PT1 for details. [N.J.A.C. 7:27-22.16(e)].	Other: Stack test results. See Subject Item PT1 for details. [N.J.A.C. 7:27-22.16(e)].	Other (provide description): Submit a stack test report. See Subject Item PT1 for details. [N.J.A.C. 7:27-22.16(o)]
30	Maximum emission rate from preconstruction permit. Mercury Emissions <= 0.038 lb/hr. [N.J.A.C. 7:27-22.16(e)] NON-COMPLIANT AT TIME OF PERMIT ISSUANCE. SEE COMPLIANCE SCHEDULE IN PART G.	Other: Stack emission testing. See Subject Item PT1 for details. [N.J.A.C. 7:27-22.16(e)]. NON-COMPLIANT AT TIME OF PERMIT ISSUANCE. SEE COMPLIANCE SCHEDULE IN PART G.	Other: Stack test results. See Subject Item PT1 for details. [N.J.A.C. 7:27-22.16(e)]. NON-COMPLIANT AT TIME OF PERMIT ISSUANCE. SEE COMPLIANCE SCHEDULE IN PART G.	Other (provide description): Submit a stack test report. See Subject Item PT1 for details. [N.J.A.C. 7:27-22.16(o)] NON-COMPLIANT AT TIME OF PERMIT ISSUANCE. SEE COMPLIANCE SCHEDULE IN PART G.
31	Maximum emission rate from preconstruction permit. Nickel Emissions <= 0.0015 lb/hr. [N.J.A.C. 7:27-22.16(e)]	Other: Stack emission testing. See Subject Item PT1 for details. [N.J.A.C. 7:27-22.16(e)].	Other: Stack test results. See Subject Item PT1 for details. [N.J.A.C. 7:27-22.16(e)].	Other (provide description): Submit a stack test report. See Subject Item PT1 for details. [N.J.A.C. 7:27-22.16(o)]
32	Conduct comprehensive stack test once initially and every five years prior to submitting the Operating permit renewal application. [N.J.A.C. 7:27-22.16(o)]	Other: Stack emission testing. See Subject Item PT1 for details. [N.J.A.C. 7:27-22.16(o)].	Other: Stack test results. See Subject Item PT1 for details. [N.J.A.C. 7:27-22.16(o)].	Other (provide description): Submit a stack test report. See Subject Item PT1 for details. [N.J.A.C. 7:27-22.16(o)]



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33	Total production rate(maximum metallic charge to Cupola) <= 270,000 tons/year. [N.J.A.C. 7:27-22.16(e)]	Other: Monitor total charge rate once per charge. [N.J.A.C. 7:27-22.16(o)].	Other: Manual logging in a permanently bound log book or electronic data storage of charge rate once per charge. The annual metallic charge shall be a summation of all of the individual daily charges once per calendar year. [N.J.A.C. 7:27-22.16(o)].	None.
34	Carbon Monoxide <= 2,500 ppmvd (maximum daily average). The maximum daily average may exceed 2500 ppmvd up to three (3) days each quarter but shall never exceed 4,000 ppmvd. If the daily average CO concentration does not exceed 2500 ppmvd for four (4) consecutive quarters, the Permittee shall comply with the 2500 ppmvd daily average limit at ALL TIMES from preconstruction permit. [N.J.A.C. 7:27-22.16(e)] NON-COMPLIANT AT TIME OF PERMIT ISSUANCE. SEE COMPLIANCE SCHEDULE IN PART G.	Monitored by continuous emission monitor continuously, based on any 60 minute period (averaged daily). The permittee shall also operate an oxygen continuous emission monitor. [N.J.A.C. 7:27-22.16(e)] NON-COMPLIANT AT TIME OF PERMIT ISSUANCE. SEE COMPLIANCE SCHEDULE IN PART G.	Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(e)] NON-COMPLIANT AT TIME OF PERMIT ISSUANCE. SEE COMPLIANCE SCHEDULE IN PART G.	None. NON-COMPLIANT AT TIME OF PERMIT ISSUANCE. SEE COMPLIANCE SCHEDULE IN PART G.
35	The maximum total load of metals to the Cupola from preconstruction permit <= 75 tons/hr. [N.J.A.C. 7:27-22.16(e)]	Other: Monitored by gravimetric monitoring once per charge during operation based on no averaging period. The duration in hours per charge shall also be monitored. [N.J.A.C. 7:27-22.16(o)].	Other: Manual logging in a permanently bound log book or electronic data storage once per charge. [N.J.A.C. 7:27-22.16(o)].	None.
36	Maximum amount of coke to be burned in the cupola from preconstruction permit. Coke <= 20,000 tons/year. [N.J.A.C. 7:27-22.16(e)]	Other: Monitored by gravimetric monitoring once per charge. [N.J.A.C. 7:27-22.16(o)].	Other: Manual logging in a permanently bound log book or electronic data storage once per charge. The annual coke charge shall be a summation of all of the individual daily charges once per calendar year. [N.J.A.C. 7:27-22.16(o)].	None.

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37	The permittee shall submit a quarterly report on the Excess Emissions and Monitoring Performance Report from (EEMPR), available from the Regional Enforcement Office, within 30 days of the close of each quarter, to the Regional Enforcement Office. [N.J.A.C. 7:27-22.16(e)]	None.	None.	As per the approved schedule, the report shall be submitted within 30 days of the close of other (provide description): Every April 30, July 30, October 30, and January 30 for the preceding quarter year (the quarter years begin on January 1, April 1, July 1 and October 1). When no excess emissions have occurred or the continuous monitoring systems have not been operative, repaired, or adjusted, Such information shall be stated on to the report. Other (provide description): As per the approved schedule. [N.J.A.C. 7:27-22.16(e)]
38	The department will continue to operate the High Volume Sampler for TSP analyzed to determine ambient concentrations of Lead, Cadmium, and Chromium for the determination of potential health risks from long term exposure to these pollutants. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
39	The scrubber and afterburner shall be operating at all times when the cupola is operating. Emissions from the cupola must be directed to the scrubber and afterburner at all times, including the time after shutdown of the cupola until the time when there are no emissions from the cupola. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
40	Scrubber type is limited to Venturi Scrubber only. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
41	Liquid being used for absorption is limited to water only based on operating permit application [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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42	From preconstruction permit, the maximum flow rate of the absorption liquid <=500 gpm, and minimum flow rate >= 325 gpm. [N.J.A.C. 7:27-22.16(a)] NON-COMPLIANT AT TIME OF PERMIT ISSUANCE. SEE COMPLIANCE SCHEDULE IN PART G.	Other: Monitored by continuous flow rate meter and continuous chart recorder during operation. [N.J.A.C. 7:27-22.16(o)]; NON-COMPLIANT AT TIME OF PERMIT ISSUANCE. SEE COMPLIANCE SCHEDULE IN PART G.	Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(o)] NON-COMPLIANT AT TIME OF PERMIT ISSUANCE. SEE COMPLIANCE SCHEDULE IN PART G.	None. NON-COMPLIANT AT TIME OF PERMIT ISSUANCE. SEE COMPLIANCE SCHEDULE IN PART G.
43	Scrubbing Medium Inlet Pressure >= 35 and Scrubbing Medium Inlet Pressure <=60 psig. from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	Monitored by pressure indicator continuously, based on a 1 hour block average. The permittee shall install, calibrate and maintain the monitor(s) in accordance with manufacturer's specifications. The monitor(s) shall be ranged such that the allowable value is approximately mid-scale of the full range current/voltage output. [N.J.A.C. 7:27-22.16(e)]	Scrubbing Inlet Pressure: Recordkeeping by strip chart, round chart or data acquisition (DAS) system / electronic data storage continuously. [N.J.A.C. 7:27-22.16(e)]	None.
44	From preconstruction permit, Pressure Drop Across the Scrubber >= 40 and Pressure Drop Across the Scrubber <= 60 inches w.c. [N.J.A.C. 7:27-22.16(e)]	Pressure Drop Across the Scrubber: Monitored by pressure drop instrument once per shift during operation, based on an instantaneous determination during operation. [N.J.A.C. 7:27-22.16(e)]	Pressure Drop Across the Scrubber: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(e)]	None.
45	Operating pH of the Scrubbing Solution from preconstruction permit. pH > 8su. [N.J.A.C. 7:27-22.16(e)]	Monitored by pH instrument once per shift during operation, based on an instantaneous determination. [N.J.A.C. 7:27-22.16(e)]	Recordkeeping by manual logging of parameter once per shift during operation in a permanently bound log book. [N.J.A.C. 7:27-22.16(e)]	None.
46	Maximum heat input capacity of the afterburner <= 16 MMBTU/hr from the preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	Other: Fuel burner rated capacity [N.J.A.C. 7:27-22.16(o)].	None.	None.
47	Afterburner destruction efficiency for carbon monoxide (CO) and volatile organic compounds (VOC) from preconstruction permit >= 98 %. [N.J.A.C. 7:27-22.16(e)]	Other: Destruction and Removal Efficiency: Monitored by stack tests. See PT #1 Ref#1. [N.J.A.C. 7:27-22.16(o)].	Other: Destruction and removal efficiency: Stack test results. See PT 1 Ref#1. [N.J.A.C. 7:27-22.16(o)].	Stack Test - Submittal protocol, conduct test and submit results: As per the approved schedule See PT #1 Ref#1. [N.J.A.C. 7:27-22.16(o)]

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48	Temperature at Exit of Combustion Chamber $\geq 1,500$ degrees F. The afterburner shall be equipped with an alarm or other operational warning system. The sensor shall be installed at the exit of the combustion chamber. The alarm shall be designed to sound when temperatures are detected at any time except for the first 15 min during startup and following a production interruption. [N.J.A.C. 7:27-22.16(e)]	Temperature at the Exit of Combustion Chamber: Monitored by temperature instrument continuously, based on an instantaneous determination. [N.J.A.C. 7:27-22.16(e)]	Temperature at Exit of Combustion Chamber: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(e)]	None.
49	Residence time of gases in the afterburner $\geq 0.5$ second based on preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	Other: Residence Time of the Gases in the Afterburner: Monitored by calculations once initially, based on an instantaneous determination. [N.J.A.C. 7:27-22.16(e)].	Other: Residence Time of the gases in the Afterburner: Recordkeeping by manual logging of parameter once initially. [N.J.A.C. 7:27-22.16(e)].	None.
50	Maximum sulfur content of coke from preconstruction permit. Sulfur content of coke $\leq 0.6\%$ by wt. [N.J.A.C. 7:27-22.16(e)]	Other: Sulfur content in fuel. Per delivery. [N.J.A.C. 7:27-22.16(o)].	Other: Keep certificate of analysis from the fuel supplier showing fuel sulfur content [N.J.A.C. 7:27-22.16(o)].	None.
51	Auxiliary fuels shall be limited to non hazardous waste oil, non-hazardous waste paint and wooden pallets based on the operating permit application. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
52	Maximum amount of non-hazardous waste paint to be burned in the cupola based on the preconstruction permit. Non-hazardous waste paint burned $\leq 55$ gallons/day. [N.J.A.C. 7:27-22.16(e)]	Monitored by waste feed/charge rate monitoring (liquid) upon occurrence of event. [N.J.A.C. 7:27-22.16(o)]	Recordkeeping by manual logging of parameter upon occurrence of event in a permanently bound log book. [N.J.A.C. 7:27-22.16(o)]	None.
53	Maximum sulfur content of the waste paint burned in the cupola based on the preconstruction permit. Sulfur content of waste paint $\leq 1.5\%$ by weight. [N.J.A.C. 7:27-22.16(e)]	Other: Sulfur content of waste paint as per MSDS formulation data. Per occurrence of event. [N.J.A.C. 7:27-22.16(o)].	Other: Keep current MSDS of waste paints showing sulfur content of paint. [N.J.A.C. 7:27-22.16(o)].	None.

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54	Maximum amount of non-hazardous used oil burned in the cupola based on the preconstruction permit. Non-hazardous used oil <=1000 gallons/month. [N.J.A.C. 7:27-22.16(e)]	Other: Monitored by non-hazardous oil feed rate per each occurrence during operation. [N.J.A.C. 7:27-22.16(o)].	Other: Keep records of non-hazardous oil burned in the cupola per occurrence by manual logging in a permanently bound logbook. [N.J.A.C. 7:27-22.16(o)].	None.
55	Maximum sulfur content of the non-hazardous used oil burned in the cupola based on the preconstruction permit. Sulfur content of waste paint <=0.5% by weight. [N.J.A.C. 7:27-22.16(e)]	Other: Sulfur content of non-hazardous waste oil. Per occurrence. [N.J.A.C. 7:27-22.16(o)].	Other: Keep certificate of analysis showing sulfur content of the non-hazardous used oil. Per occurrence of use. [N.J.A.C. 7:27-22.16(o)].	None.
56	The waste paint and used oil to be burned in the cupola shall only be process from on-site generated sources. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
57	Wood pallets may only be burned in the cupola when broken or when they become unacceptable for reuse by companies which routinely supply the Permittee. The source of these broken wood pallets shall be the permittee's site in Phillipsburg exclusively. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
58	Maximum allowable VOC emissions, percent of process emissions by weight <15%. [N.J.A.C. 7:27-16.16(d)]	Other: Maintain process records to demonstrate that the VOC emission rate from actual operations do not exceed the permitted emission rate [N.J.A.C. 7:27-16.16(g)1ii].	Other: Conduct an analysis of the source operation, which demonstrates that, under worst case operating conditions that maximize the VOC emissions after any control, the VOC emission rate of the source operation is in compliance with this section; and maintain process records sufficient to demonstrate whether the VOC emission rate of the source operation from actual operation does not exceed the VOC emission rate under worst case operating conditions. Once initially. [N.J.A.C. 7:27-16.16(g)2ii].	None.



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Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
59	Maintain the records required by N.J.A.C. 7:27-16.16(g) for a period of no less than five years. [N.J.A.C. 7:27-16.22(a)]	None.	Other: Manual logging of parameter. Records to be permanently bound or readily accessible computer memory. [N.J.A.C. 7:27-16.22(a)].	None.
60	The permittee shall implement a mercury minimization program, including setting specifications for scrap which will minimize mercury in the scrap, and maintain records of scrap deliveries. [N.J.A.C. 7:27-22.16(a)]	Other: Monitor scrap, per delivery. [N.J.A.C. 7:27-22.16(o)].	Other: Maintain a list of scrap deliveries with the date of each delivery, the type and amount of scrap received, and the name of the supplier. The permittee must maintain from the scrap supplier for each delivery confirmation that the supplier has reported to the permittee: (1) that the scrap conforms with the permittee's mercury specifications; (2) the amount of mercury removed from the scrap, if any (for example, the number of mercury switches removed); (3) the name and location of the company that removed the mercury. Records shall be maintained in a permanently bound logbook. [N.J.A.C. 7:27-22.16(o)].	Other (provide description): As per the approved schedule An annual report shall be submitted to the Bureau of Operating Permits and Regional Office. Reports shall include a summary of the information provided by the scrap suppliers on the removal of mercury containing devices. [N.J.A.C. 7:27-22.16(o)]
61	The carbon monoxide and oxygen monitors shall comply with the provisions of 40 CFR 60 Appendix B and F. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

New Jersey Department of Environmental Protection  
Facility Specific Requirements

Subject Item: U2 Core machines molding sand cores  
Operating Scenario: OS Summary

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Maximum allowable particulate emission rate based on 99% collection efficiency $\leq$ 2.72 lb/hr for all sources. [N.J.A.C. 7:27-6.2(a)]	None.	None.	None.
2	Visible emission not greater than 20% opacity, exclusive of visible condensed water vapor, except for three minute period. [N.J.A.C. 7:27 - 6.2(d) ] & [N.J.A.C. 7:27-6.2(e)]	None.	None.	None.
3	Operating pressure drop range for baghouse CD5, from operating permit application. Pressure drop $\geq$ 1 and pressure drop $\leq$ 6 inches w.c. [N.J.A.C. 7:27-22.16(a)]	Monitored by pressure drop instrument continuously, based on an instantaneous determination. [N.J.A.C. 7:27-22.16(o)]	Other: Recordkeeping by manual logging of pressure drop once per month in a permanently bound logbook. [N.J.A.C. 7:27-22.16(o)].	None.
4	Maximum annual emission from preconstruction permit. TSP $\leq$ 0.54 tons/year. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
5	Maximum annual emission from preconstruction permit. PM-10 $\leq$ 0.54 tons/year. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
6	Maximum operating hours is limited to 4000 hours/year per piece of equipment. [N.J.A.C. 7:27-22.16(e)]	Other: Monitored by monthly production records[N.J.A.C. 7:27-22.16(o)].	Other: Manual logging of hours of operation monthly in a permanently bound log book. [N.J.A.C. 7:27-22.16(o)].	None.

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BOP9900001

Date: 2/19/2003

New Jersey Department of Environmental Protection  
Facility Specific Requirements

Subject Item: U2 Core machines molding sand cores  
Operating Scenario: OSI Core Molding Machine No. 1

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Maximum emission rate from operating permit application. PM-10 $\leq$ 0.064 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
2	Maximum emission rate from preconstruction permit. TSP $\leq$ 0.064 lb/hr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
3	Raw material processing rate from preconstruction permit $\leq$ 43 lb/batch @ 0.05 hour/batch. [N.J.A.C. 7:27-22.16(e)]	Other: Monitored by production records daily during operation. [N.J.A.C. 7:27-22.16(o)].	Recordkeeping by manual logging of parameter daily in a permanently bound log book. [N.J.A.C. 7:27-22.16(o)]	None.

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Date: 2/19/2003

New Jersey Department of Environmental Protection  
Facility Specific Requirements

Subject Item: U2 Core machines molding sand cores  
Operating Scenario: OS2 Core Molding Machine No. 2

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Maximum emission rate from operating permit application. PM-10 $\leq$ 0.046 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
2	Maximum emission rate from preconstruction permit. TSP $\leq$ 0.046 lb/hr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
3	Raw material processing rate from preconstruction permit $\leq$ 43 lb/batch @ 0.05 hour/batch. [N.J.A.C. 7:27-22.16(e)]	Other: Monitored by production records daily during operation. [N.J.A.C. 7:27-22.16(o)].	Recordkeeping by manual logging of parameter daily. [N.J.A.C. 7:27-22.16(o)]	None.

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New Jersey Department of Environmental Protection  
Facility Specific Requirements

Subject Item: U2 Core machines molding sand cores  
Operating Scenario: OS3 Core Molding Machine No. 3

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Maximum emission rate from operating permit application. PM-10 $\leq$ 0.046 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
2	Maximum emission rate from preconstruction permit. TSP $\leq$ 0.046 lb/hr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
3	Raw material processing rate from preconstruction permit $\leq$ 43 lb/batch @ 0.05 hour/batch. [N.J.A.C. 7:27-22.16(e)]	Other: Monitored by production records daily during operation. [N.J.A.C. 7:27-22.16(o)].	Recordkeeping by manual logging of parameter daily. [N.J.A.C. 7:27-22.16(o)]	None.



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Date: 2/19/2003

**New Jersey Department of Environmental Protection**  
**Facility Specific Requirements**

**Subject Item:** U2 Core machines molding sand cores  
**Operating Scenario:** OS4 Core Molding Machine No. 4

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Maximum emission rate from operating permit application. PM-10 $\leq$ 0.023 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
2	Maximum emission rate from preconstruction permit. TSP $\leq$ 0.023 lb/hr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
3	Raw material processing rate from preconstruction permit $\leq$ 43 lb/batch @ 0.05 hour/batch. [N.J.A.C. 7:27-22.16(e)]	Other: Monitored by production records daily during operation. [N.J.A.C. 7:27-22.16(o)].	Recordkeeping by manual logging of parameter daily. [N.J.A.C. 7:27-22.16(o)]	None.

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New Jersey Department of Environmental Protection  
Facility Specific Requirements

Subject Item: U2 Core machines molding sand cores  
Operating Scenario: OS5 Core Molding Machine No. 5

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Maximum emission rate from operating permit application. PM-10 $\leq$ 0.023 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
2	Maximum emission rate from preconstruction permit. TSP $\leq$ 0.023 lb/hr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
3	Raw material processing rate from preconstruction permit $\leq$ 43 lb/batch @ 0.05 hour/batch. [N.J.A.C. 7:27-22.16(e)]	Other: Monitored by production records daily during operation. [N.J.A.C. 7:27-22.16(o)].	Recordkeeping by manual logging of parameter daily. [N.J.A.C. 7:27-22.16(o)]	None.

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Facility Specific Requirements

Subject Item: U2 Core machines molding sand cores  
Operating Scenario: OS6 Core Molding Machine No. 6

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Maximum emission rate from operating permit application. PM-10 $\leq$ 0.023 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
2	Maximum emission rate from preconstruction permit. TSP $\leq$ 0.023 lb/hr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
3	Raw material processing rate from preconstruction permit $\leq$ 43 lb/batch @ 0.05 hour/batch. [N.J.A.C. 7:27-22.16(e)]	Other: Monitored by production records daily during operation. [N.J.A.C. 7:27-22.16(o)].	Recordkeeping by manual logging of parameter daily. [N.J.A.C. 7:27-22.16(o)]	None.

New Jersey Department of Environmental Protection  
Facility Specific Requirements

Subject Item: U2 Core machines molding sand cores  
Operating Scenario: OS7 Core Molding Machine No. 7

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Maximum emission rate from operating permit application. PM-10 $\leq$ 0.023 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
2	Maximum emission rate from preconstruction permit. TSP $\leq$ 0.023 lb/hr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
3	Raw material processing rate from preconstruction permit $\leq$ 43 lb/batch @ 0.05 hour/batch. [N.J.A.C. 7:27-22.16(e)]	Other: Monitored by production records daily during operation. [N.J.A.C. 7:27-22.16(o)].	Recordkeeping by manual logging of parameter daily. [N.J.A.C. 7:27-22.16(o)]	None.

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Facility Specific Requirements

Subject Item: U2 Core machines molding sand cores  
Operating Scenario: OS8 Core Molding Machine No. 8

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Maximum emission rate from operating permit application. PM-10 $\leq$ 0.023 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
2	Maximum emission rate from preconstruction permit. TSP $\leq$ 0.023 lb/hr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
3	Raw material processing rate from preconstruction permit $\leq$ 43 lb/batch @ 0.05 hour/batch. [N.J.A.C. 7:27-22.16(e)]	Other: Monitored by production records daily during operation. [N.J.A.C. 7:27-22.16(o)].	Recordkeeping by manual logging of parameter daily. [N.J.A.C. 7:27-22.16(o)]	None.



New Jersey Department of Environmental Protection  
Facility Specific Requirements

Subject Item: U3 Melt Center Baghouse controlling launder & ladle emissions  
Operating Scenario: OS Summary

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Maximum allowable particulate emission rate based on 0.02 grains per SCF = 25.6 lb/hr. [N.J.A.C. 7:27-6.2(a)]	None.	None.	None.
2	Opacity $\leq$ 20 % except for emissions which are greater than 20% opacity, exclusive of condensed water vapor, for a period of not longer than three (3) minutes in any consecutive 30-minute period. [N.J.A.C. 7:27-6.2(d)]	None.	None.	None.

New Jersey Department of Environmental Protection  
Facility Specific Requirements

Subject Item: U3 Melt Center Baghouse controlling launder & ladle emissions  
Operating Scenario: OS Summary

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
3	The permittee shall not use the equipment in a manner which will cause visible emissions to exceed 10%, except for a period of 30 minutes during startup and shutdown when opacity shall not exceed 20%, exclusive of condensed water vapor. [N.J.A.C. 7:27-22.16(e)]	Monitored by visual determination each week during operation, based on an instantaneous determination. The permittee shall conduct visual opacity inspections during daylight hours. Visible inspections shall consist of a visual survey to identify if the stack has visible emissions, (other than condensed water), greater than the prescribed standard. If visible emissions are observed, the permittee shall do the following: (1) Verify that the equipment causing the emission is operating according to the manufacturers specifications and the operating permit. If the equipment is not operating properly, the permittee shall take corrective action immediately to eliminate the excess emissions. The permittee must report any permit violation to NIDEP pursuant to N.J.A.C. 7:27-22.19. (2) If the corrective action taken in step one does not correct the opacity problem within 24 hours, the permittee shall perform a check via a certified opacity reader, in accordance with N.J.A.C. 7:27B-2. Such a test shall be conducted once a day until corrective action is taken to successfully correct the opacity problem. [N.J.A.C. 7:27-22.19] & [N.J.A.C. 7:27-22.16(o)]	Recordkeeping by manual logging of parameter each week during operation. The permittee must retain the following records in either a permanent bound log book, or in readily accessible computer memories: (1) Date and time of inspection; (2) Emission point number; (3) Operational status of equipment; (4) Observed results and conclusions; (5) Description of corrective action taken if needed; (6) Date and time opacity problem was solved, if applicable; (7) N.J.A.C. 7:27B-2 results if conducted; and (8) Name of person(s) conducting the inspection. [N.J.A.C. 7:27-22.16(o)]	None.
4	Maximum annual emission rate from preconstruction permit TSP <= 9.43 tons/yr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
5	Maximum annual emission rate from preconstruction permit Carbon monoxide <= 36 tons/yr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.

New Jersey Department of Environmental Protection  
Facility Specific Requirements

Subject Item: U3 Melt Center Baghouse controlling launder & ladle emissions  
Operating Scenario: OS Summary

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
6	Maximum annual emission rate the operating permit application PM-10 (total) = 9.43 tons/year. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
7	Maximum annual emission rate from preconstruction permit. SO2 <= 30.15 tons/yr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
8	Maximum annual emission rate from preconstruction permit. Nitrogen oxides <= 8.53 tons/yr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
9	Maximum annual emission rate from preconstruction permit. VOC (Total) <= 61.2 tons/yr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
10	Maximum annual emission rate from preconstruction permit. HAPs(total) <= 0.025 tons/year. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
11	Maximum annual emission rate from preconstruction permit. Chromium Emissions <= 0.00176 tons/yr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
12	Maximum annual emission rate from preconstruction permit. Lead Emissions <= 0.0217 tons/yr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
13	Maximum annual emission rate from preconstruction permit. Nickel Emissions <= 0.00151 tons/yr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
14	Emission shall vent to the baghouse central device based on preconstruction permit application. [N.J.A.C. 7:27-22.16(e)] NON-COMPLIANT AT TIME OF PERMIT ISSUANCE. SEE COMPLIANCE SCHEDULE IN PART G.	None. NON-COMPLIANT AT TIME OF PERMIT ISSUANCE. SEE COMPLIANCE SCHEDULE IN PART G.	None. NON-COMPLIANT AT TIME OF PERMIT ISSUANCE. SEE COMPLIANCE SCHEDULE IN PART G.	None. NON-COMPLIANT AT TIME OF PERMIT ISSUANCE. SEE COMPLIANCE SCHEDULE IN PART G.

New Jersey Department of Environmental Protection  
Facility Specific Requirements

Subject Item: U3 Melt Center Baghouse controlling launder & ladle emissions  
Operating Scenario: OS Summary

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
15	The permittee shall conduct bag cleaning, maintenance and replacement on a schedule necessary to achieve the required particulate removal efficiency as specified by the manufacturer based on preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	Monitored by visual determination once every 2 weeks. [N.J.A.C. 7:27-22.16(o)]	Recordkeeping by manual logging of parameter upon occurrence of event. The permittee shall record each instance of bag maintenance and bag replacement. [N.J.A.C. 7:27-22.16(e)]	None.
16	The pressure drop across the Baghouse, CD <sub>4</sub> , from preconstruction permit. Pressure drop across Baghouse < 6 inches of w.c. and pressure drop across the Baghouse >=1 inches of w.c. [N.J.A.C. 7:27-22.16(e)]	Monitored by pressure drop instrument continuously, based on an instantaneous determination. The permittee shall install, calibrate and maintain the monitor(s) in accordance with the manufacturer's specifications. The monitor(s) shall be ranged such that the allowable value is approximately mid-scale of the full range current/voltage output. [N.J.A.C. 7:27-22.16(e)]	Recordkeeping by manual logging of parameter once per batch during operation. [N.J.A.C. 7:27-22.16(e)]	None.
17	Maximum emission rate from operating permit application. PM-10 (total) = 5.24 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
18	Conduct comprehensive stack test every five years prior to submitting the operating permit renewal application. [N.J.A.C. 7:27-22.16(o)]	Monitored by stack emission testing every 5 years, based on any 60 minute period. (See subject item PT-3 Ref#1 for details). [N.J.A.C. 7:27-22.16(o)]	Recordkeeping by stack test results upon occurrence of event. (See subject item PT-3 Ref#1 for details). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. A protocol to conduct stack test shall be submitted to the Bureau of Technical Services (BTS), at PO Box 437, Trenton, NJ 08625-0437, at least one year prior to submitting Operating Permit renewal application. Upon protocol approval, the applicant must schedule a mutually acceptable test date with BTS. The stack test report must be submitted within 45 days after performing the stack test. [N.J.A.C. 7:27-22.16(o)]

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Facility Specific Requirements

Subject Item: U3 Melt Center Baghouse controlling launder & ladle emissions  
Operating Scenario: OS Summary

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
19	Particulate Control Efficiency $\geq$ 99% from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	Monitored by stack emission testing once initially and every 5 years, based on any 60 minute period. (See subject item PT-3 for details). [N.J.A.C. 7:27-22.16(o)]	Recordkeeping by stack test results upon occurrence of event. (See subject item PT-3 for details). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. A protocol to conduct stack test shall be submitted to the Bureau of Technical Services (BTS), at PO Box 437, Trenton, NJ 08625-0437, at least one year prior to submitting Operating Permit renewal application. Upon protocol approval, the applicant must schedule a mutually acceptable test date with BTS. The stack test report must be submitted within 45 days after performing the stack test. [N.J.A.C. 7:27-22.16(o)]
20	Maximum emission rate from preconstruction permit. Sulfur Dioxide (SO <sub>2</sub> ) $\leq$ 16.75 lb/hr. [N.J.A.C. 7:27-22.16(e)]	Monitored by stack emission testing once initially and every 5 years, based on any 60 minute period. (See subject item PT-3 for details). [N.J.A.C. 7:27-22.16(e)]	Recordkeeping by stack test results upon occurrence of event. (See subject item PT-3 for details). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. A protocol to conduct stack test shall be submitted to the Bureau of Technical Services (BTS), at PO Box 437, Trenton, NJ 08625-0437, at least one year prior to submitting Operating Permit renewal application. Upon protocol approval, the applicant must schedule a mutually acceptable test date with BTS. The stack test report must be submitted within 45 days after performing the stack test. [N.J.A.C. 7:27-22.16(o)]



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Facility Specific Requirements

Subject Item: U3 Melt Center Baghouse controlling launder & ladle emissions  
Operating Scenario: OS Summary

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
21	Maximum emission rate from preconstruction permit TSP (total) $\leq 5.24$ lb/hr. [N.J.A.C. 7:27-22.16(e)] NON-COMPLIANT AT TIME OF PERMIT ISSUANCE. SEE COMPLIANCE SCHEDULE IN PART G.	Monitored by stack emission testing once initially and every 5 years, based on any 60 minute period. (See subject item PT-3 Ref#1&2 for details). [N.J.A.C. 7:27-22.16(e)] NON-COMPLIANT AT TIME OF PERMIT ISSUANCE. SEE COMPLIANCE SCHEDULE IN PART G.	Recordkeeping by stack test results upon occurrence of event. (See subject item PT-3 Ref#1 for details). [N.J.A.C. 7:27-22.16(o)] NON-COMPLIANT AT TIME OF PERMIT ISSUANCE. SEE COMPLIANCE SCHEDULE IN PART G.	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. A protocol to conduct stack test shall be submitted to the Bureau of Technical Services (BTS), at PO Box 437, Trenton, NJ 08625-0437, at least one year prior to submitting Operating Permit renewal application. Upon protocol approval, the applicant must schedule a mutually acceptable test date with BTS. The stack test report must be submitted within 45 days after performing the stack test. [N.J.A.C. 7:27-22.16(o)] NON-COMPLIANT AT TIME OF PERMIT ISSUANCE. SEE COMPLIANCE SCHEDULE IN PART G.
22	Maximum emission rate from preconstruction permit Carbon Monoxide (CO) $\leq 20$ lb/hr. [N.J.A.C. 7:27-22.16(e)]	Monitored by stack emission testing every 5 years, based on any 60 minute period. (See subject item PT-3 Ref#1 for details). [N.J.A.C. 7:27-22.16(e)]	Recordkeeping by stack test results upon occurrence of event. (See subject item PT-3 Ref#1 for details). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. A protocol to conduct stack test shall be submitted to the Bureau of Technical Services (BTS), at PO Box 437, Trenton, NJ 08625-0437, at least one year prior to submitting Operating Permit renewal application. Upon protocol approval, the applicant must schedule a mutually acceptable test date with BTS. The stack test report must be submitted within 45 days after performing the stack test. [N.J.A.C. 7:27-22.16(o)]

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Facility Specific Requirements

Subject Item: U3 Melt Center Baghouse controlling launder & ladle emissions  
Operating Scenario: OS Summary

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
23	Maximum emission rate from preconstruction permit. Nitrogen Oxides (NOx) $\leq 4.74$ lb/hr. [N.J.A.C. 7:27-22.16(e)]	Monitored by stack emission testing every 5 years, based on any 60 minute period. (See subject item PT-3 Ref#1 for details). [N.J.A.C. 7:27-22.16(e)]	Recordkeeping by stack test results upon occurrence of event. (See subject item PT-3 Ref#1 for details). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. A protocol to conduct stack test shall be submitted to the Bureau of Technical Services (BTS), at PO Box 437, Trenton, NJ 08625-0437, at least one year prior to submitting Operating Permit renewal application. Upon protocol approval, the applicant must schedule a mutually acceptable test date with BTS. The stack test report must be submitted within 45 days after performing the stack test. [N.J.A.C. 7:27-22.16(o)]
24	Maximum emission rate from preconstruction permit. VOC (total) $\leq 34$ lb/hr. [N.J.A.C. 7:27-22.16(e)]	Monitored by stack emission testing every 5 years, based on any 60 minute period. (See subject item PT-3 Ref#1 for details). [N.J.A.C. 7:27-22.16(e)]	Recordkeeping by stack test results upon occurrence of event (See subject item Pt-3 Ref#1 for details). [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. A protocol to conduct stack test shall be submitted to the Bureau of Technical Services (BTS), at PO Box 437, Trenton, NJ 08625-0437, at least one year prior to submitting Operating Permit renewal application. Upon protocol approval, the applicant must schedule a mutually acceptable test date with BTS. The stack test report must be submitted within 45 days after performing the stack test. [N.J.A.C. 7:27-22.16(o)]
25	Maximum emission rate from preconstruction permit. HAPs(total) $\leq 0.0139$ lb/hr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.

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Subject Item: U3 Melt Center Baghouse controlling launder & ladle emissions  
Operating Scenario: OS Summary

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
26	Maximum emission rate from preconstruction permit. Lead emissions <= 0.0121 lb/hr. [N.J.A.C. 7:27-22.16(e)] NON-COMPLIANT AT TIME OF PERMIT ISSUANCE. SEE COMPLIANCE SCHEDULE IN PART G.	Monitored by stack emission testing once initially and every 5 years, based on any 60 minute period. (See subject item PT-3 R#1&2 for details). [N.J.A.C. 7:27-22.16(e)] NON-COMPLIANT AT TIME OF PERMIT ISSUANCE. SEE COMPLIANCE SCHEDULE IN PART G.	Recordkeeping by stack test results upon occurrence of event. (See subject item PT-3 R#1&2 for details). [N.J.A.C. 7:27-22.16(o)] NON-COMPLIANT AT TIME OF PERMIT ISSUANCE. SEE COMPLIANCE SCHEDULE IN PART G.	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. A protocol to conduct stack test shall be submitted to the Bureau of Technical Services (BTS), at PO Box 437, Trenton, NJ 08625-0437, at least one year prior to submitting Operating Permit renewal application. Upon protocol approval, the applicant must schedule a mutually acceptable test date with BTS. The stack test report must be submitted within 45 days after performing the stack test. [N.J.A.C. 7:27-22.16(o)] NON-COMPLIANT AT TIME OF PERMIT ISSUANCE. SEE COMPLIANCE SCHEDULE IN PART G.
27	Maximum emission rate from preconstruction permit. Chromium emissions <= 0.00098 lb/hr. [N.J.A.C. 7:27-22.16(e)] NON-COMPLIANT AT TIME OF PERMIT ISSUANCE. SEE COMPLIANCE SCHEDULE IN PART G.	Monitored by stack emission testing once initially and every 5 years, based on any 60 minute period. (See subject item PT-3 R#1&2 for details). [N.J.A.C. 7:27-22.16(e)] NON-COMPLIANT AT TIME OF PERMIT ISSUANCE. SEE COMPLIANCE SCHEDULE IN PART G.	Recordkeeping by stack test results upon occurrence of event. (See subject item PT-3 R#1&2 for details). [N.J.A.C. 7:27-22.16(o)] NON-COMPLIANT AT TIME OF PERMIT ISSUANCE. SEE COMPLIANCE SCHEDULE IN PART G.	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. A protocol to conduct stack test shall be submitted to the Bureau of Technical Services (BTS), at PO Box 437, Trenton, NJ 08625-0437, at least one year prior to submitting Operating Permit renewal application. Upon protocol approval, the applicant must schedule a mutually acceptable test date with BTS. The stack test report must be submitted within 45 days after performing the stack test. [N.J.A.C. 7:27-22.16(o)] NON-COMPLIANT AT TIME OF PERMIT ISSUANCE. SEE COMPLIANCE SCHEDULE IN PART G.

New Jersey Department of Environmental Protection  
Facility Specific Requirements

Subject Item: U3 Melt Center Baghouse controlling launder & ladle emissions  
Operating Scenario: OS Summary

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
28	Maximum emission rate from preconstruction permit. Nickel emissions $\leq$ 0.000836 lb/hr. [N.J.A.C. 7:27-22.16(e)] NON-COMPLIANT AT TIME OF PERMIT ISSUANCE. SEE COMPLIANCE SCHEDULE IN PART G.	Monitored by stack emission testing once initially and every 5 years, based on any 60 minute period. (See subject item PT-3 R#1&2 for details). [N.J.A.C. 7:27-22.16(e)] NON-COMPLIANT AT TIME OF PERMIT ISSUANCE. SEE COMPLIANCE SCHEDULE IN PART G.	Recordkeeping by stack test results upon occurrence of event. (See subject item PT-3 R#1&2 for details). [N.J.A.C. 7:27-22.16(o)] NON-COMPLIANT AT TIME OF PERMIT ISSUANCE. SEE COMPLIANCE SCHEDULE IN PART G.	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. A protocol to conduct stack test shall be submitted to the Bureau of Technical Services (BTS), at PO Box 437, Trenton, NJ 08625-0437, at least one year prior to submitting Operating Permit renewal application. Upon protocol approval, the applicant must schedule a mutually acceptable test date with BTS. The stack test report must be submitted within 45 days after performing the stack test. [N.J.A.C. 7:27-22.16(o)] NON-COMPLIANT AT TIME OF PERMIT ISSUANCE. SEE COMPLIANCE SCHEDULE IN PART G.
29	Total Production Rate $\leq$ 75 tons/hr from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	Other: monitored by gravimetric monitoring once per charge during operation based on no averaging period. The duration in hours per charge shall also be monitored. [N.J.A.C. 7:27-22.16(o)].	Other: Manual logging in a permanently bound log book or electronic data storage once per charge. [N.J.A.C. 7:27-22.16(o)].	None.
30	The production hours is limited to 3600 hours/year per piece of equipment. [N.J.A.C. 7:27-22.16(e)]	Other: monitored by hourly production records. [N.J.A.C. 7:27-22.16(o)].	Recordkeeping by manual logging of parameter once per calendar day during operation in a permanently bound log book. The daily hours shall be summed and recorded monthly to obtain monthly hours which shall be used to calculate calendar year hours. [N.J.A.C. 7:27-22.16(o)]	None.

ATLANTIC STATES CAST IRON PIPE CO (85441)  
BOP990001

Date: 2/19/2003

New Jersey Department of Environmental Protection  
Facility Specific Requirements

Subject Item: U4 Annealing Oven for Cast Pipe  
Operating Scenario: OS Summary

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Maximum allowable particulate emission rate based on .02 gr per SCF = 0.5lb/hr. [N.J.A.C. 7:27-6.2(a)]	None.	None.	None.
2	Opacity <= 20% except for emissions which are greater than 20% opacity, exclusive of condensed water vapour, for a period of not longer than three (3) minutes in any consecutive 30 minute period. N.J.A.C. 6.2 (d) & [N.J.A.C. 7:27-6.2(e)]	None.	None.	None.
3	Maximum Gross heat input from operating permit application = 75.2 MMBTU/hr. [N.J.A.C. 7:27-22.16(a)]	Other: Fuel burner rated capacity [N.J.A.C. 7:27-22.16(o)].	None.	None.
4	Raw material processing rate from operating permit application <= 150,000 lb/hr. [N.J.A.C. 7:27-22.16(a)]	Monitored by material feed/flow monitoring daily, based on a daily average. [N.J.A.C. 7:27-22.16(o)]	Recordkeeping by manual logging of parameter daily in a permanently bound log book. [N.J.A.C. 7:27-22.16(o)]	None.
5	Inspect the burner(s), and clean or replace any components of the burner(s) as necessary to minimize total emissions of NOx and carbon monoxide (CO) [N.J.A.C. 7:27-19.13(n)]	None.	None.	None.
6	Inspect the flame pattern and make any adjustments to the burner(s) necessary to optimize the flame pattern and inspect the system controlling the air-to-fuel ratio, and ensure that it is correctly calibrated and functioning properly. [N.J.A.C. 7:27-19.13(n)]	None.	None.	None.
7	Maximum annual emission rate based on 271MMcf <sup>3</sup> annual natural gas usage from operating permit application. VOC <= 0.195 tons/year. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.



New Jersey Department of Environmental Protection  
Facility Specific Requirements

Subject Item: U4 Annealing Oven for Cast Pipe  
Operating Scenario: OS Summary

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
8	Maximum annual emission rate based on 271MMcf <sup>3</sup> annual natural gas usage from operating permit application. PM-10 <= 0.070 tons/year. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
9	Maximum annual emission rate based on 271MMcf <sup>3</sup> annual natural gas usage from operating permit application. SOx <= 0.042 tons/year. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
10	Maximum annual emission rate based on 271MMcf <sup>3</sup> annual natural gas usage from operating permit application. TSP <= 0.070 tons/year. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
11	Maximum annual emission rate based on 271MMcf <sup>3</sup> annual natural gas usage from operating permit application. NOx <= 9.73 tons/year. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
12	Maximum annual emission rate based on 271MMcf <sup>3</sup> annual natural gas usage from operating permit application. CO <= 2.433 tons/year. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
13	Maximum emission rate from operating permit application. PM-10 <= 0.039lb/hr [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
14	Maximum emission rate from operating permit application. TSP <= 0.039 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
15	Maximum emission rate from operating permit application. NOx <= 5.406 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
16	Maximum emission rate from operating permit application. CO <= 1.351 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

New Jersey Department of Environmental Protection  
Facility Specific Requirements

Subject Item: U4 Annealing Oven for Cast Pipe  
Operating Scenario: OS Summary

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
17	Maximum emission rate from operating permit application. VOC <= 0.108lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
18	Natural Gas Usage <= 271 MMft <sup>3</sup> Maximum annual fuel usage rate from NOx control plan based on any 12 consecutive months. [N.J.A.C. 7:27-19.13(n)]	Natural Gas Usage: Monitored by fuel flow/firing rate instrument continuously, based on a consecutive 12 month period (rolling 1 month basis) [N.J.A.C. 7:27-19.13(n)] & [N.J.A.C. 7:27-22.16(o)]	Other: Recordkeeping by manual logging fuel usage monthly in a permanently bound log book [N.J.A.C. 7:27-19.13(n)] & [N.J.A.C. 7:27-22.16(o)].	None.
19	Fuel type is limited to natural gas only from NOx control plan. [N.J.A.C. 7:27-19.13(n)]	None.	None.	None.
20	Adjust the combustion process in accordance with N.J.A.C. 7:27-19.16 each calendar year. Record NOx and CO conc. after each adjustment and the O2 conc. at which NOx and CO were measured. [N.J.A.C. 7:27-19.13(n)]	Other: Periodic emission monitoring (Portable Instrument). Annually [N.J.A.C. 7:27-22.16(o)].	Other: Record the date of the adjustment and the times at which it began and ended; the name, title and affiliation of the person who made the adjustment; The NOx concentration in the effluent stream in either ppmv or ppmvd, after each adjustment was made; The CO concentration in the effluent stream, in either ppmv or ppmvd, after each adjustment was made. [N.J.A.C. 7:27-22.16(o)].	None.
21	An exceedance of an emission limit which occurs, during an adjustment of the combustion process is not a violation of this approval. Before the combustion adjustment begins, and after it has been completed, the maximum NOx emission rate based on NOx control plan of NOx shall not exceed 0.15 lbs/MMBTU. [N.J.A.C. 7:27-19.13(n)]	None.	None.	None.
22	The emission rates of nitrogen oxides (NOx) from Annealing Oven shall not exceed 0.15 lbs/MMBTU, from the approved NOx Control Plan. [N.J.A.C. 7:27-19.13(n)]	None.	None.	None.

New Jersey Department of Environmental Protection  
Facility Specific Requirements

Subject Item: U4 Annealing Oven for Cast Pipe  
Operating Scenario: OS Summary

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
23	Maximum allowable rate for VOC ≤ 3.5 lb/hr [N.J.A.C. 7:27-16.16(c)]	Other: Maintain process records to demonstrate that the VOC emission rate from actual operations do not exceed the permitted emission rate[N.J.A.C. 7:27-16.16(g)iii].	Other: Conduct an analysis of the source operation, which demonstrates that, under worst case operating conditions that maximize the VOC emissions after any control, the VOC emission rate of the source operation is in compliance with this section; and maintain process records sufficient to demonstrate whether the VOC emission rate of the source operation form actual operations does not exceed the VOC emission rate under worst case operating conditions. [N.J.A.C. 7:27-16.16(g)].	None.
24	Maintain the records required by N.J.A.C. 7:27-16.16(g) for a period of no less than five years. [N.J.A.C. 7:27-16.22(a)]	None.	Other: Manual logging of parameter. Records to be permanently bound or readily accessible computer memory. [N.J.A.C. 7:27-16.22(a)].	None.

New Jersey Department of Environmental Protection  
Facility Specific Requirements

Subject Item: U6 Finishing Baghouse - Cutting the pipe, grinding the bell and removal of sand  
Operating Scenario: OS Summary

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Maximum allowable particulate emission rate based on 99% efficiency of collection from preconstruction permit = 3.77 lb/hr. [N.J.A.C. 7:27-6.2(a)]	None.	None.	None.
2	Visible emission not greater than 20% opacity, exclusive of visible condensed water vapor, except for three minute period. [N.J.A.C. 7:27-6.2(d)] & [N.J.A.C. 7:27-6.2(e)]	None.	None.	None.
3	Maximum annual particulate emission limit from preconstruction permit TSP <= 2.363 tons/year. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
4	Maximum annual emission limit from operating permit application of PM-10 <= 2.363 tons/year. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
5	Operating pressure drop range across the bag house based on preconstruction permit. Pressure drop >= 2 and pressure drop <= 6 inches w.c. [N.J.A.C. 7:27-22.16(e)]	Monitored by pressure drop Instrument continuously, based on an instantaneous determination during operation. [N.J.A.C. 7:27-22.16(o)]	Recordkeeping by manual logging of parameter once per shift during operation. Records shall be maintained in a permanently bound logbook. [N.J.A.C. 7:27-22.16(o)]	None.
6	The permittee shall conduct bag cleaning, maintenance and replacement on a schedule necessary to achieve the required particulate removal efficiency as specified by the manufacturer. [N.J.A.C. 7:27-22.16(e)]	Monitored by visual determination once every 2 weeks. [N.J.A.C. 7:27-22.16(o)]	Recordkeeping by manual logging of parameter upon occurrence of event. The permittee shall record each instance of bag maintenance and bag replacement. [N.J.A.C. 7:27-22.16(e)]	None.
7	Control efficiency of the particulate control system from preconstruction permit = 99.9%. [N.J.A.C. 7:27-22.16(e)]	None.	Other: Particulate Control efficiency : Record keeping by manual logging of parameter once initially. The permittee shall keep records of the manufacturer's information showing the minimum design efficiency. [N.J.A.C. 7:27-22.16(e)].	None.

New Jersey Department of Environmental Protection  
Facility Specific Requirements

Subject Item: U6 Finishing Baghouse - Cutting the pipe, grinding the bell and removal of sand  
Operating Scenario: OS Summary

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
8	Maximum hours of operation <= 3600 hr/year from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	Other: Monitored by production records once per day [N.J.A.C. 7:27-22.16(o)].	Recordkeeping by manual logging of parameter once per calendar day during operation in a permanently bound log book. The daily hours shall be summed and recorded monthly. The monthly hours shall be used to calculate calendar year hours. Annual hours shall be recorded once per calendar year. [N.J.A.C. 7:27-22.16(o)]	None.
9	Maximum production rate from preconstruction permit <= 75 tons/hr. [N.J.A.C. 7:27-22.16(e)]	Other: Monitored by production records once per day based on a daily average [N.J.A.C. 7:27-22.16(o)].	Recordkeeping by manual logging of parameter once per calendar day during operation in a permanently bound log book. [N.J.A.C. 7:27-22.16(e)]	None.

**ATLANTIC STATES CAST IRON PIPE CO (85441)**  
**BOP990001**

Date: 2/19/2003

**New Jersey Department of Environmental Protection**  
**Facility Specific Requirements**

**Subject Item:** U6 Finishing Baghouse - Cutting the pipe, grinding the bell and removal of sand  
**Operating Scenario:** OS1 Reamer- Reaming Interior of Rework Pipe

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Maximum emission limit from preconstruction permit. TSP(cement) <= 3.72 lb/hr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
2	Maximum emission limit from operating permit application. PM10 <= 3.72 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
3	Raw materials are limited to Cement, Sand and Dry asphalt from preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.



New Jersey Department of Environmental Protection  
Facility Specific Requirements

Subject Item: U6 Finishing Baghouse - Cutting the pipe, grinding the bell and removal of sand  
Operating Scenario: OS2 Bell Grinder - grinding the bell of the pipe

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Maximum emission rate from preconstruction permit TSP $\leq$ 0.053 lb/hr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
2	Maximum emission rate from operating permit application, for PM10 $\leq$ 0.053 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
3	Raw material percentages from operating permit application: Iron = 99.98% Sand = 0.02%. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.